REMARKS

Claims 1-8, 13-15, 28, and 29 are rejected. Claims 1-8, 13-23, 28, and 29 are currently pending while Claims 16-23 have been previously withdrawn from consideration. Applicants respectfully request further examination and reconsideration in view of the remarks set forth below. Applicants believe that the amendments herein to the patent application do not add new matter to it.

Double Patenting

Claims 1-8, 13-15, 28 and 29 are allegedly rejected on the grounds of nonstatutory obviousness-type double patenting over Claims 1-10 of Stirniman et al., U.S. Patent No. 6,613,151 (hereinafter Stirniman), in view of Liehr et al., U.S. Patent No. 6,487,986 (hereinafter Liehr), and Dick et al., U.S. Patent No. 5,904,958 (hereinafter Dick). Applicants respectfully disagree.

The Examiner refers to the Stirniman patent Claims 1-10 for allegedly reciting similar subject matter as the instant claims, however the Examiner at page 3 of the Office Action dated April 2, 2009, concedes that Stirniman does not disclose plugs of the type recited in the instant claims. Therefore, Liehr is relied on for allegedly teaching nozzles, and Dick is relied on for allegedly teaching a bolted nozzle plate. Applicants respectfully disagree. However, independent Claim 1 has been amended and now recites (emphasis added):

> An apparatus for vapor depositing a uniform thickness thin film of a lubricant on at least one surface of a disk-shaped substrate, comprising:
>
> (a) a chamber having an interior space;
>
> (b) a substrate loader/unloader for supplying said interior space with at least one disk-shaped substrate and for withdrawing <u>at least one disk-shaped substrate</u> from said interior space, said disk-shaped substrate comprising a magnetic or magneto optical data/information storage and retrieval medium;
>
> (c) at least one elongated lubricant vapor source for supplying said interior space with a stream of lubricant vapor, the at least one elongated lubricant vapor source comprising a closed heated chamber fluidly communicating with at least <u>a plurality of primary plugs having an interior for supplying a stream of lubricant vapor, wherein each of said plurality of primary plugs comprises a drilled hole and two openings, said drilled hole substantially extending the length of the interior of each primary plug for transporting the stream of lubricant vapor; and</u>

(d) a substrate transporter/conveyor for continuously moving at least one disk-shaped substrate past said stream of lubricant vapor from at least one lubricant vapor source for depositing on at least one surface thereof a uniform thickness thin film of lubricant,

wherein said lubricant vapor source (c) comprises a plurality of threaded holes, positioned in a direction parallel to said drilled hole, into which the plurality of primary plugs are screwed therein.

As such, the configuration now recited in amended Claim 1 is different and unobvious from the claims of Stirniman.

The configuration as recited in amended Claim 1 is shown, for example, in Figures 1 and 3 which shows a chamber (1) for a disk shaped substrate (7) on an substrate loader/unloader (6) a lubricant source (13) with a plurality of primary plugs (16) having a drilled hole (43) and two openings (45, 45'), the lubricant vapor source (13) comprising a plurality of threaded holes into which the plurality of plugs are screwed in. As recited in Claim 1, the vapor source includes threaded holes, into which the plugs are screwed in, and these plugs have an interior for supplying a stream of lubricant vapor. The plugs include a drilled hole and two openings, the drilled hole substantially extends the length of the interior of the plug for transporting the stream of lubricant vapor and the threaded holes are positioned in a direction parallel to the drilled hole.

As conceded by the Examiner, Stirniman does not disclose the plugs as recited in Claim 1 and Liehr does not disclose any threaded holes. Dick fails to ameliorate the deficiencies of Stirniman in view of Liehr, at least because Dick also fails to teach or suggest a configuration in which a lubricant vapor source comprises a plurality of threaded holes into which the plurality of plugs are screwed in, and these holes are parallel to the drilled hole in the interior of the plug for transporting the vapor deposition stream.

Dick discloses a coating apparatus for a flat continuous sheet, (see col. 3, lines 50-57), that is wound around reels and rollers (see col. 3, line 55 – col. 4, line 9). Vapor is deposited on sheets (16) via a nozzle opening (60), the nozzle (48) is held to the nozzle housing (28) by a nozzle plate (50) shown in Figures 2-6. The nozzle plate (50) is bolted to the nozzle housing (28) using perpendicular bolts (58), (see col. 4, lines 35-

40). As, such it is clear that Dick does not teach or suggest a plurality of ***threaded holes into which the plurality of plugs*** are screwed which are **parallel** to the drilled hole in the interior of the plug for transporting the vapor deposition stream. Rather, Dick discloses nozzle plate (50) which is perpendicularly bolted to nozzle housing (28).

Moreover, Applicants respectfully contend that a person having ordinary skill in the art would not have found it obvious to modify the apparatus of Stirniman and Liehr with the apparatus of Dick.

It is well settled that, "[a] reference should be considered as a whole, and portions arguing against or teaching away from the claimed invention must be considered." *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.* 796 F.2d 443, 230 USPQ 416 (Fed. Cir. 1986).

Moreover, a reference *teaches away* when it "would likely discourage the art worker from attempting the substitution suggested by [the inventor/patentee]." *Gillette Co. v. S.C. Johnson & Son, Inc.*, 919 F.2d 720, 16 USPQ2d 1923 (Fed. Cir. 1990).

Stirniman teaches an apparatus for annular disk-shaped substrates (col. 8, lines 30-31). Furthermore, Liehr is directed to a method of "coating large, planar substrate surfaces with **super-hard carbon coatings**," (emphasis added), (see col. 2, lines 27-30). On the other hand, Dick is directed to coating of a continuous sheet stored on a rotatable reel, the sheet is wound and fed through guide rolls for maintaining a predetermined degree of tension on the sheet (see col. 3, line 55 – col. 4, line 9). As such, the apparatus of Dick is configured for a thin, easily pliable continuous sheet. Applicants respectfully assert that a person having ordinary skill in the art would not have found it obvious to modify the apparatus of Stirniman and Liehr with that of Dick, as the apparatus of Dick would destroy the apparatus and function of Stirniman and Liehr.

Accordingly, none of the cited prior art references teach or suggest all of the elements of independent Claim 1. Therefore, Applicants respectfully submit that independent Claim 1 is allowable. Dependent Claims 2-8, 10-15, 28, and 29 are allowable for at least the same reasons as independent Claim 1 and further distinguish the claimed apparatus.

35 U.S.C. §103 Rejections

Claims 1-8, 13-15, 28, and 29 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Helling et al., U.S. Patent No. 5,882,415 (hereinafter Helling), in view of Liehr and further in view of Dick; or Hedgcoth U.S. 6,036,824 (hereinafter Hedgcoth), in view of Liehr and Dick. Applicants respectfully disagree.

As conceded on pages 6 and 10, respectively, of the Office Action dated April 2, 2009, each of Helling and Hedgcoth fail to disclose a plurality of plugs as recited in Claim 1. Moreover, as conceded on page 12, of the Office Action dated April 2, 2009, none of Helling, Hedgcoth, or Liehr disclose a plurality of threaded holes into which the plugs are screwed in. Therefore, Dick is relied on for allegedly teaching this element. For the reasons noted in Applicants response of December 16, 2008, it is Applicants' position that Dick does not teach or suggest threaded holes into which plugs are screwed in.

However, in order to expedite prosecution, Claim 1 has been amended and now recites, in pertinent part "**wherein said lubricant vapor source (c) comprises a plurality of threaded holes, positioned in a direction parallel to said drilled hole, into which the plurality of primary plugs are screwed therein.**"

As discussed above, in reference to the rejection on the grounds of nonstatutory obviousness-type double patenting, the configuration as recited in newly amended Claim 1, is shown, for example, in Figure 3, which shows that the plugs (16) include a drilled hole (43) and two openings (45, 45'), the drilled hole (43) substantially extends the length of the interior of the plug for transporting the stream of lubricant vapor and is parallel to the threaded holes of the vapor source (13).

Dick fails to ameliorate the deficiencies of Helling in view of Liehr, and Hedgcoth in view of Liehr, at least because Dick also fails to teach or suggest a configuration in which a lubricant vapor source comprises a plurality of threaded holes into which the plurality of plugs are screwed in, and these holes are parallel to the drilled hole in the interior of the plug for transporting the vapor deposition stream.

Dick discloses a coating apparatus for a flat continuous sheet, (see col. 3, lines 50-57), that is wound around reels and rollers (see col. 3, line 55 – col. 4, line 9). Vapor

is deposited on sheets (16) via a nozzle opening (60), the nozzle (48) is held to the nozzle housing (28) by a nozzle plate (50) shown in Figures 2-6.

Moreover, in Dick, the nozzle plate (50) is bolted to the nozzle housing (28) using bolts (58), which are perpendicular to the vapor direction through nozzle opening (60) (see col. 4, lines 35-40 and Figure 3). As such, it is clear that Dick does not teach or suggest a plurality of ***threaded holes into which the plurality of plugs*** are screwed which are parallel to the drilled hole in the interior of the plug for transporting the vapor deposition stream.

Moreover, Applicants respectfully assert that a person having ordinary skill in the art would not have found it obvious to modify the apparatus of Helling or Hedgcoth and Liehr with the apparatus of Dick.

It is well settled that, "[a] reference should be considered as a whole, and portions arguing against or teaching away from the claimed invention must be considered." *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.* 796 F.2d 443, 230 USPQ 416 (Fed. Cir. 1986).

Moreover, a reference *teaches away* when it "would likely discourage the art worker from attempting the substitution suggested by [the inventor/patentee]." *Gillette Co. v. S.C. Johnson & Son, Inc.*, 919 F.2d 720, 16 USPQ2d 1923 (Fed. Cir. 1990).

Hedgcoth is directed to apparatus for a disk carrier 6, that is "particularly designed to be maintained in a **vertical plane** as it passes through the main deposition chamber 14," (emphasis added), (see col. 4, lines 40-35). Furthermore, Liehr is directed to a method of "coating large, planar substrate surfaces with **super-hard carbon coatings**," (emphasis added), (see col. 2, lines 27-30).

On the other hand, Dick is directed to coating of a continuous sheet stored on a rotatable reel, the sheet is **wound** and fed through guide rolls for maintaining a predetermined degree of tension on the sheet (see col. 3, line 55 – col. 4, line 9). As such, the apparatus of Dick is configured for a thin, easily pliable continuous sheet. Applicants respectfully assert that a person having ordinary skill in the art would <u>not</u> have found it obvious to modify the apparatus of Helling or Hedgcoth and Liehr with that of Dick, as the apparatus of Dick would destroy the apparatus and function of Helling or Hedgcoth and Liehr.

Accordingly, none of the cited prior art references teach or suggest all of the elements of independent Claim 1. Therefore, it is respectfully submitted that independent Claim 1 is allowable. Dependent Claims 2-8, 10-15, 28, and 29 are allowable for at least the same reasons as independent Claim 1 and further distinguish the claimed apparatus.

CONCLUSION

For all the reasons advanced above, Applicants respectfully submit that pending Claims 1-8, 13-15, 28, and 29 are in condition for allowance and that action is respectfully solicited.

The Examiner is invited to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present application.

Please charge any additional fees or credit any overpayments to Deposit Account Number: 50-4160.

Respectfully submitted,

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Dated: July 26, 2009

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